

I claim:

1. An infant simulator, comprising:
 - (a) a doll having a temperature sensor effective for sensing the environmental temperatures to which the doll is exposed; and
 - (b) a means effective for recording the sensed temperature.
2. An infant simulator, comprising:
 - (a) a doll having a temperature sensor effective for sensing the environmental temperatures to which the doll is exposed; and
 - (b) a means for generating a perceptible thermal exposure signal when the sensed temperature falls above or below a defined acceptable temperature range.
3. The infant simulator of claim 1 further comprising a means for generating a perceptible thermal exposure signal when the sensed temperature falls outside a defined acceptable temperature range.
4. The infant simulator of claim 2 wherein the acceptable temperature range has a minimum temperature of between about 10 to 15 °C and a maximum temperature of between about 35 to 40 °C.
5. The infant simulator of claim 2 wherein the perceptible thermal exposure signal is generated continuously throughout a thermal exposure period.
6. The infant simulator of claim 2 further comprising a means in communication with the thermal exposure signal generating means for escalating the intensity of the thermal exposure signal as the difference between the sensed temperature and the acceptable temperature range increases.

7. The infant simulator of claim 5 further comprising a means in communication with the thermal exposure signal generating means for escalating the intensity of the thermal exposure signal as the duration of the thermal exposure period increases.
8. The infant simulator of claim 6 wherein the thermal exposure signal intensity-escalating means is effective for escalating the intensity of the thermal exposure signal to at least two higher intensity thermal exposure signals.
9. The infant simulator of claim 1 wherein the infant simulator has an approximate shape and weight of an infant.
10. The infant simulator of claim 2 wherein the infant simulator has an approximate shape and weight of an infant.
11. The infant simulator of claim 1 further comprising an energy source retained within the doll for supplying the energy requirements of the infant simulator, and a means for indicating that the energy source has been accessed.
12. The infant simulator of claim 2 wherein the perceptible thermal exposure signal is expressed as an audible cry.
13. The infant simulator of claim 1 wherein the temperature sensor is a thermister.
14. The infant simulator of claim 1 wherein the temperature sensor is retained within the doll and access to the temperature sensor is restricted.
15. The infant simulator of claim 14 further comprising a means for indicating that the temperature sensor has been accessed.

16. The infant simulator of claim 2 wherein the temperature sensor is retained within the doll and the infant simulator further comprises a means for indicating that the temperature sensor has been accessed.
- 5 17. The infant simulator of claim 1 wherein the temperature recording means is effective for recording at least the first instance in which the sensed temperature falls outside a defined acceptable temperature range.
- 10 18. The infant simulator of claim 3 wherein the temperature recording means is effective for recording the number of instances in which the sensed temperature falls outside the defined acceptable temperature range.
- 15 19. The infant simulator of claim 1 wherein the temperature recording means is effective for recording the value of the highest and lowest temperatures sensed during an assignment period.
- 20 20. The infant simulator of claim 1 wherein the temperature recording means is effective for recording the value of at least the outermost temperature sensed during each instance in which the sensed temperature falls outside a defined acceptable temperature range.
- 25 21. The infant simulator of claim 17, 18 or 20 wherein the acceptable temperature range has a minimum temperature of between about 10 to 15 °C and a maximum temperature of between about 35 to 40 °C.
22. The infant simulator of claim 1 wherein the recording means is effective for continuously recording the value of the sensed temperature throughout a thermal exposure period.

23. The infant simulator of claim 5 wherein the recording means is effective for recording the duration of each thermal exposure period.
24. The infant simulator of claim 1 wherein the temperature recording means is effective for continually recording the environmental temperature to which the doll is exposed for the duration of an assignment period.
25. The infant simulator of claim 3 wherein the temperature recording means is effective for continually recording the environmental temperature to which the doll is exposed for the duration of an assignment period.
26. An infant simulator, comprising:
 - (a) a doll having a means for sensing compression of the doll; and
 - (b) a means for recording a sensed compression.
27. An infant simulator, comprising:
 - (a) a doll having a means for sensing elevated compression of the doll; and
 - (b) a means in communication with the compression sensing means for generating a perceptible distress signal when compression is sensed.
28. The infant simulator of claim 26 further comprising a means in communication with the compression sensing means for generating a perceptible distress signal when compression is sensed.
29. The infant simulator of claim 27 or 28 wherein the compression sensing means is effective for sensing compression throughout a compression episode.
30. The infant simulator of claim 27 or 28 wherein the perceptible distress signal is generated throughout a distress period.

38. The infant simulator of claim 27 or 28 wherein the perceptible distress signal is expressed as an audible cry or scream.
39. The infant simulator of claim 26 or 27 wherein at least a portion of the body of the doll is pliant and the compression sensor comprises a normally open electrical circuit wherein (i) a first half of the electrical circuit is configured and arranged within the doll to move in accordance with movement of the pliant portion of the body, and (ii) a second half of the electrical circuit is inwardly spaced from the first half of the electrical circuit such that inward movement of the pliant portion of the body of the doll is effective for causing the first half of the electric circuit to contact the second half of the electric circuit, thereby closing the electrical circuit and effecting the sensing of compression.
40. The infant simulator of claim 26 wherein the compression recording means is effective for recording at least the first compression episode occurring within an assignment period.
41. The infant simulator of claim 26 wherein the compression recording means is effective for recording the number of compression episodes occurring within an assignment period.
42. The infant simulator of claim 26 wherein the compression sensing means and compression recording means are effective for sensing and recording the strength of at least the maximum compressive force sensed during each compression episode.
43. The infant simulator of claim 42 wherein the compression sensing means and compression recording means are effective for sensing and recording at least two levels of compressive force, reflective of mild and abusive force experienced by the infant simulator during the compression episode.

44. The infant simulator of claim 29 wherein the compression recording means is effective for recording the duration of each compression episode.

5 45. The infant simulator of claim 26 or 27 wherein the doll has a head and the compression sensing means is effective for sensing compression of the head.

46. The infant simulator of claim 26 or 27 wherein the doll has appendages and the compression sensing means is effective for sensing compression of an appendage.

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47. An infant simulator, comprising:

- (a) a doll;
- (b) a diaper-change system within the doll for periodically effecting a diaper-change episode, including at least:
 - (i) a means for generating a perceptible soiled-diaper signal; and
 - (ii) a means in communication with the soiled-diaper signal generating means for arresting the soiled-diaper signal in response to receipt of a diaper-changed signal; and
- (c) a diaper configured and arranged to be fitted over the lower torso of the doll as a diaper and having a means effective for transmitting the diaper-changed signal to the soiled-diaper signal arresting means when the diaper is fitted on the doll.

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48. An infant simulator, comprising:

- (a) a doll;
- (b) a diaper-change system within the doll for periodically effecting a diaper-change episode, including at least:
 - (i) a means for generating a perceptible soiled-diaper signal;
 - (ii) a means for receiving a diaper-changed signal; and

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(iii) a means for measuring and recording the duration of the diaper-change episode measured from initial generation of the perceptible soiled-diaper signal to receipt of the diaper-changed signal by the diaper-changed signal receiving means; and

(c) a diaper configured and arranged to be fitted over the lower torso of the doll as a diaper and having a means effective for transmitting the diaper-changed signal to the soiled-diaper signal arresting means when the diaper is fitted on the doll.

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The infant simulator of claim ¹47 or ²48 further comprising a diaper-change interval timer in communication with the soiled-diaper signal generating means for initiating generation of ^{Sequential} the soiled-diaper signals at intervals.

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The infant simulator of claim 47 or 48 further comprising a care-provider identification system within the doll, including at least (i) a means for receiving an identification signal, and (ii) a means in communication with the identification-signal receiving means and the diaper-change system effective for preventing arresting of the soiled-diaper signal until the identification signal is received by the identification-signal receiving means.

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The infant simulator of claim ¹²50 wherein the identification-signal receiving means is selected from a voice recognition system or a fingerprint recognized system.

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The infant simulator of claim 49 wherein the identification-signal receiving means comprises a keyhole effective for transmitting the identification signal upon insertion of an identification key; and the infant simulator further comprises an identification key effective for transmitting the identification signal when inserted into the keyhole, and a means for attaching the identification key to a selected care-provider capable of indicating detachment of the identification key from the selected care-provider.

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The infant simulator of claim ~~47~~ further comprising a means effective for measuring and recording the duration of the diaper-change episode.

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The infant simulator of claim ~~48~~ or ~~53~~ wherein the diaper-change episode measuring and recording means is effective for measuring and recording the sum total of the duration of all diaper-change episodes occurring within an assignment period.

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The infant simulator of claim 48 or 53 wherein the diaper-change episode measuring and recording means is effective for measuring and separately recording the duration of each and every diaper-change episode occurring within an assignment period.

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The infant simulator of claim ~~47~~ or ~~48~~ further comprising a means in communication with the soiled-diaper signal generating means for escalating the intensity of the soiled-diaper signal as the duration of the diaper-change episode increases.

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The infant simulator of claim 56 wherein the soiled-diaper signal intensity-escalating means is effective for escalating the intensity of the soiled-diaper signal to at least two higher intensity soiled-diaper signals.

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The infant simulator of claim ~~47~~ or ~~48~~ wherein the infant simulator has an approximate shape and weight of an infant.

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The infant simulator of claim ~~47~~ or ~~48~~ further comprising an energy source retained within the doll for supplying the energy requirements of the simulator, and a means for indicating that the energy source has been accessed.

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The infant simulator of claim ¹47 or ²48 wherein the perceptible soiled-diaper signal is expressed as an audible cry.

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The infant simulator of claim ²48 wherein the perceptible soiled-diaper signal is expressed as a wetted diaper.

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The infant simulator of claim ³49 wherein the time interval between the generation of sequential soiled-diaper signals is a random variable occurring within a predetermined time range.

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The infant simulator of claim ³49 wherein the time interval between the generation of sequential soiled-diaper signals is a predetermined value.

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The infant simulator of claim ⁴62 further comprising a means for adjusting the potential duration of the time interval between the generation of sequential soiled-diaper signals at the beginning of an assignment period, whereby the potential number of soiled-diaper signals generated by the diaper-change system during an assignment period is correspondingly increased or decreased.

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The infant simulator of claim ⁵64 wherein the diaper-change interval duration-adjustment means is effective for adjusting the time interval between the generation of sequential soiled-diaper signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

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The infant simulator of claim ⁸63 further comprising a means for adjusting the duration of the time interval between the generation of sequential soiled-diaper signals at the beginning of an assignment period, whereby the number of soiled-

diaper signals generated by the diaper-change system during an assignment period is correspondingly increased or decreased.

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67. The infant simulator of claim ⁹66 wherein the diaper-change time interval-duration
5 adjustment means is effective for adjusting the time interval between the generation of sequential soiled-diaper signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

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68. The infant simulator of claim ³49 wherein the time interval between the generation of sequential soiled-diaper signals is between 20 minutes and 6 hours.

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70. The infant simulator of claim 62 wherein the time interval between the generation of sequential soiled-diaper signals is between a minimum of 1 to 2 hours and a maximum of 4 to 6 hours, with a statistical preference for a time interval between approximately 2 and approximately 4 hours.

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71. The infant simulator of claim 47, 48 or 53 wherein (i) the infant simulator further includes at least two diapers, with each diaper equipped with a means effective for transmitting a different diaper-changed signal, and (ii) the means for arresting the soiled-diaper signal alternates between the different diaper-changed signals as the signal effective for arresting the soiled-diaper signal.

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71. An infant simulator, comprising:
(a) a doll;
(b) a rocking-request system within the doll for periodically effecting rocking-request episodes, including at least:
(i) a means for generating a perceptible rocking-request signal; and

- (ii) a means in communication with the rocking-request signal generating means for detecting rocking of the doll and arresting the rocking-request signal when rocking is detected.

5 72. The infant simulator of claim 71 further comprising a rocking-request interval timer in communication with the rocking-request signal generating means for initiating generation of the rocking-request signal at intervals.

10 73. The infant simulator of claim 71 further comprising a care-provider identification system within the doll, including at least (i) a means for receiving an identification signal, and (ii) a means in communication with the identification-signal receiving means and the rocking-request system effective for preventing arresting of the rocking-request signal until the identification signal is received by the identification-signal receiving means.

15 74. The infant simulator of claim 73 wherein the care-provider identification system includes a voice recognition system.

20 75. The infant simulator of claim 73 wherein the care-provider identification system includes a fingerprint recognition system.

25 76. The infant simulator of claim 73 wherein the identification-signal receiving means comprises a keyhole effective for transmitting the identification signal upon insertion of an identification key.

30 77. The infant simulator of claim 76 further comprising an identification key effective for transmitting the identification signal when inserted into the keyhole, wherein the identification key includes a means for attaching the identification key to a selected care-provider and a means for indicating detachment of the identification key from the selected care-provider.

78. The infant simulator of claim 71 further comprising a means effective for measuring and recording the duration of the rocking-request episode.

5 79. The infant simulator of claim 71 further comprising a means effective for measuring and recording the sum total of the duration of all rocking-request episodes occurring within an assignment period.

80. The infant simulator of claim 71 further comprising a means effective for measuring and separately recording the duration of each and every rocking-request episode occurring within an assignment period.

10 81. The infant simulator of claim 71 further comprising a means in communication with the rocking-request signal generating means for escalating the intensity of the rocking-request signal as the duration of the rocking-request episode increases.

15 82. The infant simulator of claim 81 wherein the rocking-request signal intensity-escalating means is effective for escalating the intensity of the rocking-request signal to at least two higher intensity rocking-request signals.

20 83. The infant simulator of claim 71 wherein the infant simulator has an approximate shape and weight of an infant.

25 84. The infant simulator of claim 71 further comprising an energy source retained within the doll for supplying the energy requirements of the infant simulator, and a means for indicating that the energy source has been accessed.

85. The infant simulator of claim 71 wherein the perceptible rocking-request signal is expressed as a signal selected from the group consisting of an audible cry, an audible whimper, fidgeting, and a combination thereof.

86. The infant simulator of claim 71 wherein the rocking-request signal arresting means is only effective for inhibiting the rocking-request signal so long as rocking is continuously detected, and the infant simulator further comprises a rocking-request duration timer in communication with the rocking-request signal generating means for terminating generation of the rocking-request signal at the end of a rocking period.

87. The infant simulator of claim 86 wherein the duration of the rocking period is a random variable lasting for a time period falling within a predetermined time range.

88. The infant simulator of claim 86 wherein the duration of the rocking period is a predetermined value.

89. The infant simulator of claim 87 further comprising a means for adjusting the potential duration of a rocking period at the beginning of an assignment period.

90. The infant simulator of claim 89 wherein the rocking period duration adjusting means is effective for adjusting the rocking period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

91. The infant simulator of claim 88 further comprising a means for adjusting the duration of the rocking period at the beginning of an assignment period.

92. The infant simulator of claim 91 wherein the rocking period duration adjustment means is effective for adjusting the rocking period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

93. The infant simulator of claim 87 wherein the duration of the rocking period is between 2 and 60 minutes, with a statistical preference for a rocking period of between 5 and 20 minutes.

94. The infant simulator of claim 71 wherein the time interval between the generation of sequential rocking-request signals is a random variable occurring within a predetermined time range.

95. The infant simulator of claim 71 wherein the time interval between the generation of sequential rocking-request signals is a predetermined value.

96. The infant simulator of claim 94 further comprising a means for adjusting the potential duration of the time interval between the generation of sequential rocking-request signals at the beginning of an assignment period, whereby the potential number of rocking-request signals generated by the rocking-request system during an assignment period is correspondingly increased or decreased.

97. The infant simulator of claim 96 wherein the rocking-request interval duration-adjustment means is effective for adjusting the time interval between the generation of sequential rocking-request signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

98. The infant simulator of claim 95 further comprising a means for adjusting the duration of the time interval between the generation of sequential rocking-request signals at the beginning of an assignment period, whereby the number of rocking-request signals generated by the rocking-request system during an assignment period is correspondingly increased or decreased.

99. The infant simulator of claim 98 wherein the rocking-request time interval-duration adjustment means is effective for adjusting time interval between the generation of sequential rocking-request signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

100. The infant simulator of claim 71 wherein the time interval between the generation of sequential rocking-request signals is between 1 and 6 hours.

101. The infant simulator of claim 94 wherein the time interval between the generation of sequential rocking-request signals is between a minimum of 1 to 2 hours and a maximum of 4 to 6 hours.

102. The infant simulator of claim 100 wherein the time interval between the generation of sequential rocking-request signals varies from time interval to time interval.

103. The infant simulator of claim 71 wherein the rocking detection means is a motion sensor within the doll.

104. The infant simulator of claim 86 wherein the rocking-request system is configured and arranged to inhibit generation of the rocking-request signal only when accelerations of less than a predetermined value are detected, whereby abusive

treatment of the infant simulator does not inhibit generation of the rocking-request signal.

105. An infant simulator, comprising:

- 5 (a) a doll;
- (b) a feeding-request system within the doll for periodically effecting feeding-request episodes, including at least:
- 10 (i) a means for generating a perceptible feeding-request signal;
- (ii) a means in communication with the feeding-request signal generating means for arresting the feeding-request signal in response to receipt of a feeding signal;
- (c) a means effective for transmitting the feeding signal to the feeding-request signal arresting means when placed in communicative proximity to the doll so as to arrest the feeding-request signal; and
- 15 (d) a burping-request system within the doll for effecting burping-request episodes, including at least:
- (i) a means for generating a perceptible burping-request signal;
- (ii) a means for initiating generation of the burping-request signal in communication with both the feeding-request system and the
- 20 burping-request signal generating means for initiating generation of the burping-request signal after the feeding signal has been received by the feeding-request system; and
- (iii) a means in communication with the burping-request signal generating means for detecting patting of the doll and arresting the
- 25 burping-request signal when patting is detected.

106. An infant simulator, comprising:

- (a) a doll;
- 30 (b) a feeding-request system within the doll for periodically effecting feeding-request episodes, including at least:

- (i) a means for generating a perceptible feeding-request signal;
- (ii) a feeding-request duration timer in communication with the feeding-request signal generating means for terminating generation of the feeding-request signal at the end of a feeding period; and
- 5 (iii) a means in communication with the feeding-request signal generating means for inhibiting the feeding-request signal upon continuous receipt of a feeding signal;
- (c) a means effective for transmitting the feeding signal to the feeding-request signal arresting means when placed in communicative proximity to the
- 10 doll so as to arrest the feeding-request signal; and
- (d) a burping-request system within the doll for effecting burping-request episodes, including at least:
 - (i) a means for generating a perceptible burping-request signal;
 - (ii) a means for initiating generation of the burping-request signal in
 - 15 communication with both the feeding-request system and the burping-request signal generating means for initiating generation of the burping-request signal after the feeding period; and
 - (iii) a means in communication with the burping-request signal generating means for detecting patting of the doll and arresting the
 - 20 burping-request signal when patting is detected.

107. The infant simulator of claim 105 or 106 further comprising a feeding-request interval timer in communication with the feeding-request signal generating means for initiating generation of the feeding-request signal at intervals.

108. The infant simulator of claim 105 or 106 further comprising a care-provider identification system within the doll, including at least (i) a means for receiving an identification signal, and (ii) a means in communication with the identification-signal receiving means and the feeding-request system effective for preventing

arresting of the feeding-request signal until the identification signal is received by the identification-signal receiving means.

5 109. The infant simulator of claim 108 wherein the care-provider identification system includes a voice recognition system.

110. The infant simulator of claim 108 wherein the care-provider identification system includes a fingerprint recognition system.

10 111. The infant simulator of claim 108 wherein the identification-signal receiving means comprises a keyhole effective for transmitting the identification signal upon insertion of an identification key.

15 112. The infant simulator of claim 111 further comprising an identification key effective for transmitting the identification signal when inserted into the keyhole, wherein the identification key includes a means for attaching the identification key to a selected care-provider and a means for indicating detachment of the identification key from the selected care-provider.

20 113. The infant simulator of claim 105 or 106 further comprising a means effective for measuring and recording the duration of the feeding-request episode.

25 114. The infant simulator of claim 105 or 106 further comprising a means in communication with the feeding-request signal generating means for escalating the intensity of the feeding-request signal as the duration of the feeding-request episode increases.

30 115. The infant simulator of claim 114 wherein the feeding-request signal intensity-escalating means is effective for escalating the intensity of the feeding-request signal to at least two higher intensity feeding-request signals.

116. The infant simulator of claim 105 or 106 further comprising a means in communication with the burping-request signal generating means for escalating the intensity of the burping-request signal as the duration of the burping-request episode increases.
117. The infant simulator of claim 116 wherein the burping-request signal intensity-escalating means is effective for escalating the intensity of the burping-request signal to at least two higher intensity burping-request signals.
118. The infant simulator of claim 105 or 106 wherein the infant simulator has an approximate shape and weight of an infant.
119. The infant simulator of claim 105 or 106 further comprising an energy source retained within the doll for supplying the energy requirements of the infant simulator, and a means for indicating that the energy source has been accessed.
120. The infant simulator of claim 105 or 106 wherein the perceptible feeding-request signal is expressed as a signal selected from the group consisting of an audible cry, an audible sucking, outstretched arms and a combination thereof.
121. The infant simulator of claim 106 wherein the duration of the feeding period is a random variable lasting for a time period falling within a predetermined time range.
122. The infant simulator of claim 106 wherein the duration of the feeding period is a predetermined value.
123. The infant simulator of claim 121 further comprising a means for adjusting the potential duration of a feeding period at the beginning of an assignment period.

124. The infant simulator of claim 123 wherein the feeding period duration adjusting means is effective for adjusting the feeding period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

125. The infant simulator of claim 122 further comprising a means for adjusting the duration the feeding period at the beginning of an assignment period.

126. The infant simulator of claim 125 wherein the feeding period duration adjustment means is effective for adjusting the feeding period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

127. The infant simulator of claim 107 wherein the time interval between the generation of sequential feeding-request signals is a random variable occurring within a predetermined time range.

128. The infant simulator of claim 107 wherein the time interval between the generation of sequential feeding-request signals is a predetermined value.

129. The infant simulator of claim 127 further comprising a means for adjusting the potential duration of the time interval between the generation of sequential feeding-request signals at the beginning of an assignment period, whereby the potential number of feeding-request signals generated by the feeding-request system during an assignment period is correspondingly increased or decreased.

130. The infant simulator of claim 129 wherein the feeding-request interval duration-adjustment means is effective for adjusting the time interval between the generation of sequential feeding-request signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

131. The infant simulator of claim 128 further comprising a means for adjusting the duration of the between the generation of sequential feeding-request signals at the beginning of an assignment period, whereby the number of feeding-request signals generated by the feeding-request system during an assignment period is correspondingly increased or decreased.

132. The infant simulator of claim 131 wherein the feeding-request time interval-duration adjustment means is effective for adjusting the between the generation of sequential feeding-request signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

133. The infant simulator of claim 106 wherein the feeding-request signal inhibiting means is effective for inhibiting the feeding-request signal during the feeding period only so long as the feeding signal transmitting means is continuously held in a communicative position relative to the doll against a biasing means by a care provider.

134. The infant simulator of claim 105 or 106 wherein the feeding signal transmitting means is a key bearing indicia of a bottle.

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135. The infant simulator of claim 105 or 106 wherein the doll has a mouth, and the feeding signal transmitting means is a bottle configured and arranged to be inserted within the mouth of the doll for transmitting the feeding signal to the feeding-request signal arresting means.
136. The infant simulator of claim 105 or 106 further comprising a means effective for measuring and recording the duration of the burping-request episode.
137. The infant simulator of claim 105 or 106 further comprising a means effective for measuring and recording the sum total of the duration of all burping-request episodes occurring within an assignment period.
138. The infant simulator of claim 105 or 106 further comprising a means effective for measuring and separately recording the duration of each and every burping-request episode occurring within an assignment period.
139. The infant simulator of claim 105 or 106 further comprising a burping-request duration timer in communication with the burping-request signal generating means for terminating generation of the burping-request signal at the end of a burping period.
140. The infant simulator of claim 105 or 106 wherein the perceptible burping-request signal is expressed as a signal selected from the group consisting of an audible cry, an audible whimper, fidgeting, and a combination thereof.
141. The infant simulator of claim 105 or 106 wherein the burping-request signal arresting means is only effective for inhibiting the burping-request signal upon the detection of continuous patting, and the infant simulator further comprises a burping-request duration timer in communication with the burping-request signal

generating means for terminating generation of the burping-request signal at the end of a burping period.

- 5 142. The infant simulator of claim 141 wherein the duration of the burping period is a random variable lasting for a time period falling within a predetermined time range.
- 10 143. The infant simulator of claim 141 wherein the duration of the burping period is a predetermined value.
144. The infant simulator of claim 142 further comprising a means for adjusting the potential duration of a burping period at the beginning of an assignment period.
- 15 145. The infant simulator of claim 144 wherein the burping period duration adjusting means is effective for adjusting the burping period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.
- 20 146. The infant simulator of claim 143 further comprising a means for adjusting the duration the burping period at the beginning of an assignment period.
- 25 147. The infant simulator of claim 146 wherein the burping period duration adjustment means is effective for adjusting the burping period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.
- 30 148. The infant simulator of claim 142 wherein the duration of the burping period is between 2 and 60 minutes.

149. The infant simulator of claim 143 wherein the duration of the burping period is between 5 and 20 minutes.
- 5 150. The infant simulator of claim 105 or 106 wherein the perceptible feeding-request signal and the perceptible burping-request signal are perceptibly different signals.
151. The infant simulator of claim 105 or 106 further comprising a burping-request delay timer in communication with the burping-request signal initiating means for
10 delaying generation of the burping-request signal for a feed-to-burp delay period.
152. The infant simulator of claim 151 wherein the feed-to-burp delay period is a random variable falling within a predetermined time range.
- 15 153. The infant simulator of claim 151 wherein the feed-to-burp delay period is a predetermined variable.
154. The infant simulator of claim 152 wherein the feed-to-burp delay period is between 0 and 30 minutes, with a statistical preference for a delay period of
20 between about 2 and 10 minutes.
155. The infant simulator of claim 153 wherein the feed-to-burp delay period is between 0 and 30 minutes.
- 25 156. The infant simulator of claim 105 or 106 wherein the patting detection means is effective for detecting patting and inhibiting the burping-request signal during the burping time period only so long as patting is continuous.
157. The infant simulator of claim 156 wherein the patting detection means is a motion
30 sensor within the doll.

158. The infant simulator of claim 139 further comprising (i) a means in communication with the patting detection means for recording the duration of actual patting received by the infant simulator during a burping-request period, and (ii) a means in communication with the actual patting duration timer and the burping-request duration timer for generating an audible burp at the end of a burping-period only when a minimum duration of actual patting has been recorded.

159. The infant simulator of claims 105 or 106 wherein the burping-request signal generating means can only be arrested by the means for detecting patting of the doll.

160. The infant simulator of claims 105 or 106 wherein the means for initiating generation of the burping-request signal initiates generation of the burping-request signal independently of any environmentally sensed conditions.

161. The infant simulator of claims 105 or 106 wherein a burping-request episode is initiated each and every time the feeding signal is received by the feeding-request system.

162. The infant simulator of claim 106 wherein a burping-request episode is initiated only after selected feeding periods.

163. An infant simulator, comprising:

- (a) a doll;
- (b) a demand system within the doll for periodically effecting a demand episode, including at least:
 - (i) a means for generating a perceptible demand signal; and

- (ii) a means in communication with the demand signal generating means for arresting the demand signal in response to receipt of a satisfaction signal;
- 5 (c) a means effective for transmitting the satisfaction signal to the demand signal arresting means and arresting the demand signal requiring a specified interaction with the doll; and
- (d) a fussing system within the doll for effecting at least one fussy episode, including at least:
- 10 (i) a means for generating a perceptible fussy signal; and
- (ii) a fussy event timer in communication with the fussy signal generating means for initiating generation of the fussy signal; and
- (iii) a fussy event duration timer in communication with the fussy signal generating means for terminating generation of the fussy signal at the end of a fussy period;
- 15 (iv) wherein the fussy signal cannot be arrested during the fussy period by interacting with the doll.
164. The infant simulator of claim 163 wherein the fussy event timer generates the fussy signal at intervals, and the infant simulator further comprises a demand interval timer in communication with the demand signal generating means for initiating generation of the demand signal at intervals.
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165. The infant simulator of claim 163 further comprising a care-provider identification system within the doll, including at least (i) a means for receiving an identification signal, and (ii) a means in communication with the identification-signal receiving means and the demand system effective for preventing arresting of the demand signal until the identification signal is received by the identification-signal receiving means.
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182. The infant simulator of claim 180 further comprising a means for adjusting the potential duration of the time interval between the generation of sequential demand signals at the beginning of an assignment period, whereby the potential number of demand signals generated by the demand system during an assignment period is correspondingly increased or decreased.

183. The infant simulator of claim 181 further comprising a means for adjusting the duration of the time interval between the generation of sequential demand signals at the beginning of an assignment period, whereby the number of demand signals generated by the demand system during an assignment period is correspondingly increased or decreased.

184. The infant simulator of claim 175 wherein the demand signal arresting means is effective for inhibiting the demand signal during the demand period only so long as the satisfaction signal transmitting means is continuously held in a communicative position relative to the doll against a biasing means by a care provider.

185. The infant simulator of claim 163 further comprising (i) a means for detecting handling of the doll, and (ii) a means in communication with the fussy signal generating means for escalating the intensity of the fussy signal as the time period between commencement of the fussy signal and the detection of handling increases.

186. The infant simulator of claim 185 wherein the fussy signal intensity-escalating means is effective for escalating the intensity of the fussy signal to at least two higher intensity fussy signals.

187. The infant simulator of claim 185 wherein the handling detection means is a motion sensor within the doll.

188. The infant simulator of claim 163 wherein the perceptible fussy signal is expressed as a signal selected from the group consisting of an audible cry, an audible whimper, an audible whine, an audible coughing, fidgeting, and a combination thereof.

189. The infant simulator of claim 163 wherein the duration of the fussy period is a random variable lasting for a time period falling within a predetermined time range.

190. The infant simulator of claim 163 wherein the duration of the fussy period is a predetermined value.

191. The infant simulator of claim 189 further comprising a means for adjusting the potential duration of the fussy period at the beginning of an assignment period.

192. The infant simulator of claim 191 wherein the fussy period duration adjusting means is effective for adjusting the fussy period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

193. The infant simulator of claim 190 further comprising a means for adjusting the duration of the fussy period at the beginning of an assignment period.

194. The infant simulator of claim 193 wherein the fussy period duration adjustment means is effective for adjusting the fussy period duration to one of at least three duration options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

195. The infant simulator of claim 189 wherein the duration of the fussy period is between 2 and 60 minutes.

196. The infant simulator of claim 190 wherein the duration of the fussy period is between 5 and 20 minutes.

197. The infant simulator of claim 164 wherein the time interval between the generation of sequential fussy signals is a random variable occurring within a predetermined time range.

198. The infant simulator of claim 164 wherein the time interval between the generation of sequential fussy signals is a predetermined value.

199. The infant simulator of claim 197 further comprising a means for adjusting the potential duration of the time interval between the generation of sequential fussy signals at the beginning of an assignment period, whereby the potential number of fussy signals generated and expressed by the fussy system during an assignment period is correspondingly increased or decreased.

200. The infant simulator of claim 199 wherein the fussy time interval duration-adjustment means is effective for adjusting the time interval between the generation of sequential fussy signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

201. The infant simulator of claim 198 further comprising a means for adjusting the duration of the time interval between the generation of sequential fussy signals at the beginning of an assignment period, whereby the number of fussy signals

generated by the fussy system during an assignment period is correspondingly increased or decreased.

- 5 202. The infant simulator of claim 201 wherein the fussy time interval-duration adjustment means is effective for adjusting the time interval between the generation of sequential fussy signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.
- 10 203. The infant simulator of claim 164 wherein the time interval between the generation of sequential fussy signals is between 1 and 48 hours.
- 15 204. The infant simulator of claim 164 wherein the time interval between the generation of sequential fussy signals is between a minimum of 1 to 4 hours and a maximum of 8 to 48 hours, with a statistical preference for a time interval between approximately 8 and approximately 24 hours.
- 20 205. The infant simulator of claim 163 wherein the demand signal and the fussy signal are expressed as identically perceptible signals.
- 25 206. The infant simulator of claim 163 wherein the demand signal and the fussy signal are expressed as substantially identical signals having different intensities.
207. The infant simulator of claim 163 wherein the demand signal and the fussy signal are expressed as perceptibly different signals.

- Sub A8 208. An infant simulator, comprising:
- (a) a doll;

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- (b) a demand system within the doll for periodically effecting a demand episode, including at least:
- (i) a means for generating a perceptible demand signal;
 - (ii) a means in communication with the demand signal generating means for arresting the demand signal in response to receipt of a satisfaction signal produced only by a single predefined type of physical interaction with the doll; and

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- (c) a feedback system within the doll for signaling a contented condition, including at least:
- (i) a means for generating a perceptible contented signal; and
 - (ii) a means for initiating generation of the contented signal in communication with both the demand system and the contented signal generating means, effective for initiating generation of the contented signal only after the satisfaction signal has been received by the demand system.

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209. An infant simulator, comprising:

- (a) a doll;
- (b) a demand system within the doll for effecting a demand episode, including at least:
 - (i) a means for generating a perceptible demand signal;
 - (ii) a means for receiving a satisfaction signal and arresting the demand signal upon receipt of the satisfaction signal; and
 - (iii) a means for measuring and recording the duration of each demand episode measured from initial generation of the perceptible demand signal to receipt of the satisfaction signal by the satisfaction signal receiving means;

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- (c) a feedback system within the doll for signaling a contented condition, including at least:

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- (i) a means for generating a perceptible contented signal;

(ii) a means for initiating generation of the contented signal in communication with both the demand system and the contented signal generating means for initiating generation of the contented signal only after the satisfaction signal has been received by the demand system.

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The infant simulator of claim 208 or 209 further comprising a means effective for transmitting the satisfaction signal to the demand signal arresting means when placed in communicative proximity to the doll.

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The infant simulator of claim 208 or 209 further comprising a demand interval timer in communication with the demand signal generating means for initiating generation of the demand signal at intervals.

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The infant simulator of claim 208 or 209 further comprising a care-provider identification system within the doll, including at least (i) a means for receiving an identification signal, and (ii) a means in communication with the identification-signal receiving means and the demand system effective for preventing arresting of the demand signal until the identification signal is received by the identification-signal receiving means.

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The infant simulator of claim 212 wherein the identification-signal receiving means comprises a voice recognition system.

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The infant simulator of claim 212 wherein the identification-signal receiving means comprises a fingerprint recognition system.

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The infant simulator of claim 212 wherein the identification-signal receiving means comprises a keyhole effective for transmitting the identification signal upon insertion of an identification key.

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216. The infant simulator of claim ³⁴215 further comprising an identification key effective for transmitting the identification signal when inserted into the keyhole, wherein the identification key includes a means for attaching the identification key to a selected care-provider and a means for indicating detachment of the
- 5 identification key from the selected care-provider.
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217. The infant simulator of claim ²⁷208 further comprising a means effective for measuring and recording the duration of the demand episode.
- 10 37
218. The infant simulator of claim ^{27 28}208 or 209 further comprising a means in communication with the demand signal generating means for escalating the intensity of the demand signal as the duration of the demand episode increases.
- 15 38
219. The infant simulator of claim ^{27 28}208 or 209 wherein the infant simulator has an approximate shape and weight of an infant.
- 20 39
220. The infant simulator of claim ^{27 28}208 or 209 further comprising an energy source retained within the doll for supplying the energy requirements of the infant simulator, and a means for indicating that the energy source has been accessed.
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221. The infant simulator of claim ^{27 28}208 or 209 wherein the perceptible demand signal is expressed as an audible signal.
- 25 41
222. The infant simulator of claim ^{27 28}208 or 209 wherein the demand signal arresting means is only effective for inhibiting the demand signal in response to receipt of the satisfaction signal, and the infant simulator further comprises a demand duration timer in communication with the demand signal generating means for terminating generation of the demand signal at the end of a demand period.

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~~223~~. The infant simulator of claim ~~222~~ wherein the duration of the demand period is a random variable lasting for a time period falling within a predetermined time range.

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~~224.~~

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~~224.~~ The infant simulator of claim ~~222~~ wherein the duration of the demand period is a predetermined value.

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~~225.~~ The infant simulator of claim ~~223~~ further comprising a means for adjusting the potential duration of the demand period at the beginning of an assignment period.

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~~226.~~ The infant simulator of claim ~~224~~²²¹ further comprising a means for adjusting the duration the demand period at the beginning of an assignment period.

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~~208 or 209 w~~

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227. The infant simulator of claim ~~208~~ or ~~209~~ wherein the perceptible contented signal is expressed as a signal selected from the group consisting of an audible laugh, an audible cooing, an audible sigh, a smile, movement of appendages, and a combination thereof.

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228. The infant simulator of claim 208 or 209 further comprising a contented signal delay timer in communication with the contented signal initiating means for delaying commencement of generation of the contented signal, after the satisfaction signal is received by the demand system, for a gratification delay period.

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229. The infant simulator of claim 228 wherein the gratification delay period is a random variable falling within a predetermined time range.

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230. The infant simulator of claim 228 wherein the gratification delay period is a predetermined variable.

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The infant simulator of claim 229 wherein the gratification delay period is between a minimum of 0 to 2 minutes and a maximum of 5 to 20 minutes, with a statistical preference for a time interval between approximately 2 and approximately 5 minutes.

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The infant simulator of claim 230 wherein the gratification delay period is between 0 and 10 minutes.

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The infant simulator of claim 222 further comprising a contented signal delay timer in communication with the demand duration timer and the contented signal initiating means for delaying commencement of generation of the contented signal for a gratification delay period after termination of the demand signal.

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The infant simulator of claim 233 wherein the gratification delay period is a random variable falling within a predetermined time range.

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The infant simulator of claim 233 wherein the gratification delay period is a predetermined value.

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236.

An infant simulator, comprising:

(a) a doll;

(b) a demand system within the doll for effecting a demand episode, including at least:

during the demand episode

(i) a means for generating a perceptible demand signal; and

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(ii) a means in communication with the demand signal generating means for arresting the demand signal in response to receipt of a satisfaction signal ^{provided by a user}

(c) a means effective for transmitting the satisfaction signal to the demand signal arresting means when placed in communicative proximity to the doll; and

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- (d) a means in communication with the demand signal generating means for escalating the intensity of the demand signal as the duration of the demand episode ~~increases~~ ^{C1}

Ins. C1 >

5 ~~237.~~

The infant simulator of claim 236 further comprising a care-provider identification system within the doll, including at least (i) a means for receiving an identification signal, and (ii) a means in communication with the identification-signal receiving means and the demand system effective for preventing arresting of the demand signal until the identification signal is received by the identification-signal receiving means.

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51 ~~238.~~

The infant simulator of claim ~~237~~ ⁵⁶ wherein the identification-signal receiving means comprises a voice recognition system.

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~~239.~~

The infant simulator of claim ~~237~~ ⁵⁶ wherein the identification-signal receiving means comprises a fingerprint recognition system.

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~~240.~~

The infant simulator of claim ~~237~~ ⁵⁶ wherein the identification-signal receiving means comprises a keyhole effective for transmitting the identification signal upon insertion of an identification key.

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~~241.~~

The infant simulator of claim ~~240~~ ⁵⁹ further comprising an identification key effective for transmitting the identification signal when inserted into the keyhole, wherein the identification key includes a means for attaching the identification key to a selected care-provider and a means for indicating detachment of the identification key from the selected care-provider.

~~242.~~

The infant simulator of claim ~~236~~ ⁵⁵ further comprising a means effective for measuring and recording the duration of the demand episode.

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243.

The infant simulator of claim 236 further comprising a means effective for measuring and recording the sum total of the duration of all demand episodes occurring within an assignment period.

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~~244.~~

The infant simulator of claim ~~236~~ further comprising a means effective for measuring and separately recording the duration of each and every demand episode occurring within an assignment period.

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~~245.~~

The infant simulator of claim ~~23~~6 wherein the infant simulator has an approximate shape and weight of an infant.

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246. The infant simulator of claim ~~236~~ wherein the demand signal intensity-escalating means is effective for escalating the intensity of the demand signal to at least two higher intensity demand signals.

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~~247.~~

The infant simulator of claim 236 further comprising an energy source retained within the doll for supplying the energy requirements of the infant simulator, and a means for indicating that the energy source has been accessed.

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~~248.~~

The infant simulator of claim 236 wherein the demand signal arresting means is only effective for inhibiting the demand signal in response to receipt of the satisfaction signal, and the infant simulator further comprises a demand duration timer in communication with the demand signal generating means for terminating generation of the demand signal at the end of a demand period.

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249. The infant simulator of claim ~~248~~, wherein the duration of the demand period is a random variable lasting for a time period falling within a predetermined time range.

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The infant simulator of claim 248 wherein the duration of the demand period is a predetermined value.

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The infant simulator of claim 249 further comprising a means for adjusting the potential duration of the demand period at the beginning of an assignment period.

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The infant simulator of claim 250 further comprising a means for adjusting the duration the demand period at the beginning of an assignment period.

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The infant simulator of claim 236 wherein the satisfaction signal transmitting means is a key.

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254.

An infant simulator, comprising:

- (a) a doll;
- (b) a demand system within the doll for effecting a demand episode, including at least:
 - (i) a means for generating a perceptible demand signal; and
 - (ii) a means in communication with the demand signal generating means for arresting the demand signal in response to receipt of a satisfaction signal; and
- (c) a care-provider identification system within the doll, including at least
 - (i) a means for receiving an identification signal, and
 - (ii) a means in communication with the identification-signal receiving means and the demand system effective for preventing arresting of the demand signal, even though the satisfaction signal has been received by the satisfaction signal receiving means, until the identification signal is received by the identification-signal receiving means.

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255.

An infant simulator, comprising:

- (a) a doll;
- (b) a demand system within the doll for effecting a demand episode, including at least:
 - (i) a means for generating a perceptible demand signal;
 - (ii) a means for receiving a satisfaction signal and arresting the demand signal upon receipt of the satisfaction signal; and
 - (iii) a means for measuring and recording the duration of each demand episode measured from initial generation of the perceptible demand signal to receipt of the satisfaction signal by the satisfaction signal receiving means; and
- (c) a care-provider identification system within the doll, including at least:
 - (i) a means for receiving an identification signal, and
 - (ii) a means in communication with the identification-signal receiving means and the demand system effective for causing continued measuring of the duration of a demand episode, even though the satisfaction signal has been received by the satisfaction signal receiving means, unless the identification signal is received by the identification-signal receiving means after generation of the perceptible demand signal has been initiated.

256.

The infant simulator of claim ^{73 74}254 or ^{73 74}255 further comprising a demand interval timer in communication with the demand signal generating means for initiating generation of the demand signal at intervals.

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257.

The infant simulator of claim ^{73 74}254 or ^{73 74}255 wherein the identification-signal receiving means comprises a voice recognition system.

258.

The infant simulator of claim ^{73 74}254 or ^{73 74}255 wherein the identification-signal receiving means comprises a fingerprint recognition system.

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259. The infant simulator of claim 254 or 255 wherein the identification-signal receiving means comprises a keyhole effective for transmitting the identification signal upon insertion of an identification key.

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260. The infant simulator of claim 259 further comprising an identification key effective for transmitting the identification signal when inserted into the keyhole, wherein the identification key includes a means for attaching the identification key to a selected care-provider and a means for indicating detachment of the
10 identification key from the selected care-provider.

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261. An infant simulator, comprising:

- 15 (a) a doll; and
(b) a demand system within the doll for periodically effecting a demand episode, including at least:
- 15 (i) a means for generating sequential perceptible demand signal;
(ii) a means in communication with the demand signal generating means for inhibiting the demand signal in response to receipt of a satisfaction signal; ^{from a user}
20 (iii) a demand interval timer in communication with the demand signal generating means for initiating generation of the demand signal at intervals;
(iv) a means in communication with the demand interval timer for adjusting the actual duration or statistically probable duration of
25 the time interval between the generation of sequential demand signals;
(v) a demand duration timer in communication with the demand signal generating means for terminating generation of the demand signal at the end of a demand period;

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- (vi) a means in communication with the demand duration timer for adjusting the actual duration or statistically probable duration of the demand period; ^{and}
- (vii) wherein adjustments in the duration of the time interval between the generation of sequential demand signals and the duration of the demand period are inversely related, such that an increase in one is accompanied by a decrease in the other.

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262. The infant simulator of claim ⁸⁰261 wherein the demand interval duration-adjustment means is effective for adjusting the actual or potential time interval between the generation of sequential demand signals to one of at least three time interval options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

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263. The infant simulator of claim ⁸⁰261 wherein the demand interval timer randomly generates sequential demand signals within a predetermined interval time range.

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264. The infant simulator of claim ⁸⁰261 wherein the demand interval timer generates sequential demand signals on an fixed schedule selected from a plurality of fixed schedules.

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265. The infant simulator of claim ⁸⁰261 wherein the demand period duration-adjustment means is effective for adjusting the demand period duration to one of at least three time period options of short duration, average duration and long duration, whereby the infant simulator can be programmed to simulate the relative care requirements of an easy infant, an average infant and a difficult infant.

